

Application Number 09/820,832  
Amendment dated 08 April 2004  
Reply to Office Action of 8 October 2003

**Remarks**

Claims 1 and 3-20 remain pending in the application. Claim 1 has been amended.

**Double Patenting Rejection.**

Claims 1, 3-5, 12-14 and 18-20 stand rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over U.S. Patent 6,258,082 ("Lin"), which also issued to Applicant. Applicant acknowledges this double-patenting rejection and notes that both the current application, as well as Lin, are currently assigned to the same entity. Applicant will file an appropriate terminal disclaimer under 37 C.F.R. § 1.321(c) to overcome this rejection if necessary. However, Applicant respectfully requests to file this disclaimer at such time as the pending claims subject to this double patenting rejection become otherwise allowable.

**Claim Rejections Under 35 U.S.C. § 102 based on Schachar.**

Claims 1, 3, 4, 11-13 and 17-20 stand rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent 5,503,165 and U.S. Patent 5,489,299 (collectively, "Schachar"). The two Schachar patents contain essentially the same disclosure. Claims 1 and 18 are independent. Claims 3, 4, 11-13 and 17 depend from Claim 1; Claims 19 and 20 depend from Claim 18.

**Claim 1.**

Schachar discloses an ophthalmic surgery method for treating presbyopia by increasing the diameter of the sclera in the region of the ciliary body. Schachar discloses that one technique for accomplishing this is by thinning or weakening the sclera by surgically removing a portion of its collagenous substance, for example by laser ablation of a portion of the thickness of the sclera. Schachar 7:53-59. As the Examiner points out, Schachar teaches that if the sclera is weakened, intraocular pressure will cause that portion of the sclera to bulge outward. Schachar 7:32-37. If a

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portion of the sclera is ablated, the diameter of the sclera overlying the ciliary body can be increased by "grafting into the incision appropriate tissue and/or physiologically acceptable structural material...." Schachar 7:64-67. Schachar lists the following as examples of "appropriate tissue and/or physiologically acceptable structural materials": an artificial scleral alloplant made of purified human collage, or poly(ethylene terephthalate). Schachar 7:66-8:6. Significantly, regardless of whether the sclera is weakened or ablated, Schachar contains no teaching that the incision is filled with sub-conjunctival tissue. Likewise, Schachar contains no teaching that the incision is filled with tissue having greater flexibility than the ablated scleral tissue.

The Examiner has taken the position that "ablating the sclera tissue would result in the area being filled in by portion of the conjunctive that is proximal to the sclera, that is, the sub-conjunctival tissue." The Examiner has provided no support for this statement. Certainly Schachar does not support this statement, since Schachar teaches that foreign material must be **grafted into the incision**, as explained above.

In contrast to the teachings of Schachar, Claim 1, as amended, recites, among other limitations:

...said movement of the ciliary body is provided by the increase of the flexibility of said laser beam ablated scleral tissue which is filled in by sub-conjunctival tissue having greater flexibility than the ablated scleral tissue.

Schachar does not teach these limitations. Rather, as set forth herein, Schachar actually **teaches away** from Applicant's claimed method by requiring foreign material to be grafted into the incision, or by requiring the sclera to bulge outward due to the intraocular pressure. Schachar's disclosed techniques do not involve filling in the ablated scleral tissue with sub-conjunctival tissue having greater flexibility than the ablated scleral tissue.

For the foregoing reasons, Applicant respectfully submits that Claim 1 is allowable over Schachar, and therefore requests that this rejection be withdrawn.

**Claims 3, 4, 11-13 and 17.**

Claims 3, 4, 11-13 and 17 depend from Claim 1, and therefore are patentable over Schachar for the same reasons that Claim 1 is patentable over Schachar.

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Additionally, Claims 3, 4, 11-13 and 17 recite additional limitations that are not taught by Schachar. Specifically:

Claim	Additional Limitation	Schachar's Teaching of this Limitation
3	the ablation pattern includes at least 3 radial lines around the area of the cornea outside the limbus and each radial line has a dimension of about (0.1 - 1.0) mm in width and (2.0 - 5.0) mm in length	none
4	tissue is removed in the area outside the limbus and between two circles having diameter of about 10 mm and 18 mm	none
11	the laser beam is a ultraviolet laser having a wavelength of about (0.15 - 0.36) microns	none
12	the laser beam is an infrared laser having a wavelength of about (0.9 - 6.0) microns	none
13	the laser beam is a short pulse solid state laser having a wavelength of about (0.5 - 1.4) microns and a pulse width of about one fs to one ns	none
17	the laser beam is an infrared laser having a wavelength of about (0.9 - 6.0) microns and the laser beam is tightly focused to a spot size of about (1-500) microns to selectively remove the sclera tissue underneath the conjunctiva layer	none

Despite taking the position that these claims are anticipated by Schachar, the Examiner has provided no citation to any teaching these limitations in Schachar. Indeed, Schachar contains no specific teaching of how to perform laser ablation of scleral tissue for the treatment of presbyopia. Rather, Schachar contains only generalized statements about the possibility of thinning or weakening a portion of the collagenous substance of the sclera using a laser beam. In particular, Schachar contains no teaching of any specific parameters explaining how the ablation should be performed, as is recited in Claims 3, 4, 11-13 and 17.

For the foregoing reasons, Applicant respectfully submits that Claims 3, 4, 11-13 and 17 are allowable over Schachar, and therefore requests that this rejection be withdrawn.

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**Claims 18-20.**

Claim 18 recites a laser beam ophthalmic surgery method for treating a presbyopic eye, comprising incising a portion of the scleral tissue of the eye. Specific parameters for the incision and the laser beam are provided. Specifically:

Parameter	Value	Schachar's Teaching of this Limitation
ablation depth	300 $\mu$ m – 630 $\mu$ m	none
ablation width	0.1 mm – 2.0 mm	none
laser light wavelength	150 nm – 350 nm or 2.6 $\mu$ m – 3.2 $\mu$ m	none
laser pulse energy	0.1 mJ – 30.0 mJ	none
laser pulse duration	100 ns – 500 $\mu$ s	none

Despite taking the position that Claim 18 is anticipated by Schachar, the Examiner has provided no citation to any teaching these limitations in Schachar. Indeed, Schachar contains no specific teaching of how to perform laser ablation of scleral tissue for the treatment of presbyopia. Rather, Schachar contains only generalized statements about the possibility of thinning or weakening a portion of the collagenous substance of the sclera using a laser beam. In particular, **Schachar contains no teaching of any specific parameters explaining how the ablation should be performed**, as is recited in Claim 18.

For the foregoing reasons, Applicant respectfully submits that Claim 18 is allowable over Schachar, and therefore requests that this rejection be withdrawn. Claims 19 and 20, which depend from Claim 18, recite additional limitations, and therefore Applicant respectfully submits that these claims are allowable over Schachar for at least the same reasons that Claim 18 is allowable. Applicant requests that these rejections be withdrawn.

**Claim Rejections Under 35 U.S.C. § 102 based on Lin.**

Claims 1, 3-5, 12-14 and 18-20 stand rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent 6,258,082 ("Lin"). Applicant respectfully traverses this rejection and presents the following remarks with respect to this rejection.

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Because the recited features of independent Claims 1 and 18 are neither taught nor suggested by the combination of Schachar and Odrich, Applicant respectfully submits the rejection of these claims, and any claims which depend from these claims, is inapplicable. Applicant therefore respectfully requests that the Examiner withdraw the §103 rejection from Claims 5, 7-10 and 14-20.

**Conclusion.**

In view of the foregoing amendments, the Applicants submit that this application is in condition for allowance, and respectfully request the same. If, however, some issue remains that the Examiner feels can be addressed by an Examiner's Amendment, the Examiner is cordially invited to call the undersigned for authorization.

Respectfully submitted,

KNOBBE MARTENS OLSON & BEAR LLP

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By: Kyle F. Schlueter

Kyle F. Schlueter  
Registration No. 54,912  
Attorney of Record  
Customer No. 20,995  
(310) 551-3450

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